

HAZARD CONTROL VENTILATION

INTRODUCTION

Hazard control ventilation is used to limit personnel exposures to atmospheric contamination, oxygen deficiency and extremes of temperature. Both local exhaust and dilution ventilation are employed to control air contaminants. With the former, contamination is contained and/or collected at the source of generation, thus preventing the contaminant from mixing within the room. Typical local exhaust systems used at Fermilab include abrasive blast cabinets, lab hoods, and welding duct exhausts. In dilution ventilation, fresh air is introduced into the work area at a rate sufficient to dilute contamination to acceptable levels. This chapter describes procedures to assure that local exhaust systems control the atmospheric contaminants for which they are intended.

SPECIAL RESPONSIBILITIES

The ES&H Section and ES&H Division/Section Groups shall conduct annual surveys of the use and performance of hazard control ventilation. Reports of inadequacies and recommendations for improvement shall be sent to appropriate management personnel, the "owner" of the ventilation system and the division/section head.

Those supervising areas containing hazard control ventilation shall, when available, post the ventilation manufacturer's operating instructions on or near the unit. For Laboratory-designed/built units, or where manufacturer's instructions cannot be obtained, a standard operating procedure written by the user shall be posted in a similar place. Special effort must be made to put the operating instructions in an area that is visible and where they will not be destroyed, obstructed or painted over.

PROCEDURES

1. Local exhaust ventilation shall adequately control the hazard for which it is being used. Control shall be deemed acceptable only if one or both of the following conditions are met:
 - a. The air flow performance of the system meets the requirements set forth in the technical appendix to this policy (preferred).

- b. The level of atmospheric contamination is known to fall within DOE prescribed limits 10 Code of Federal Regulations Part 851 “Worker Safety and Health Program.
2. Ventilation systems meeting only condition (b) shall only be used for operations for which it has been demonstrated that personnel are not exposed to air contaminants in excess of prescribed levels. Each operation shall be assessed to assure compliance. In addition, such systems shall be posted with the following label (marked and attached by the ES&H Section). The names of acceptable operations shall be written on the blank lines.
3. A technical appendix describing ventilation systems used to control atmospheric contaminants, including minimum required air flows, is attached.

CAUTION

SUBSTANDARD AIR FLOW USE FOR APPROVED OPERATIONS ONLY

ES&H Section	Date
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